

Commonwealth of Kentucky
Division for Air Quality

PERMIT APPLICATION SUMMARY FORM

Completed by: Mark Labhart

GENERAL INFORMATION:

Name:	Southern Graphic Systems, Inc.
Address:	7435 Empire Drive Florence, KY 41042
Date application received:	November 26, 2007
SIC/Source description:	2796, Platemaking & Related Services
Source ID #:	21-015-00077
Source A.I. #:	212
Activity #:	APE20070002
Permit number:	F-05-025 Rev 2

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input checked="" type="checkbox"/> Permit modification	<input checked="" type="checkbox"/> Conditional major
__Administrative	<input type="checkbox"/> Title V
X Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input checked="" type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☒ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☒ Area is non-attainment (list pollutants): Basic non-attainment ozone.

EMISSIONS SUMMARY:

F-05-025 REV 2

Pollutant	Actual (tpy) *	Potential (tpy)
PM/PM ₁₀	0.23	9.2
SO ₂	0.003	0.01
NO _x	0.56	0.7
CO	0.47	0.6
VOC	14.7	50 **
LEAD	0	0
HAP		
18540-29-9 (Chromium)	0.13	0.2
7647-01-0 (HCl)	0.02	1.0
110-54-3 (Hexane)	0.4	2.6

* 2006 emissions survey

** Permit limitation

F-05-025 REV 1

Pollutant	Actual (tpy) *	Potential (tpy)
PM/PM ₁₀	0.13	8.9
SO ₂	0.002	0.01
NO _x	0.4	0.7
CO	0.08	0.6
VOC	16	50 **
LEAD	0	0
HAP		
18540-29-9 (Chromium)	-	0.2
78-93-3 (MEK)	-	1.6
110-54-3 (Hexane)	-	2.6

* 2004 emissions survey values of both facilities.

** Permit limitation

F-05-025 REV 2

SGS is adding a Laser Engraving operation for preparation of gravure cylinders. This will be emission point 27. The cylinders are cleaned, coated, laser engraved, followed by a chemical etching process. After etching the cylinders are cleaned a second time. There is a small amount of VOC emitted from the cleaning and coating operations. Particulate is emitted from acid cleaning and from the spray etching. A packed bed scrubber is used to control particulates from the etching process.

F-05-025 REV 1

Following issuance of the original draft permit, the source requested the option of demonstrating compliance with Subpart N by use of chemical fume suppressants. This option required additional monitoring and recordkeeping requirements to be added to the permit. Current regulations require a public notice / public comment period following a significant revision including a change or addition of recordkeeping and monitoring requirements. Hence the change is being processed as a significant revision even though the final permit has not been issued.

SOURCE PROCESS DESCRIPTION:

Southern Graphic Systems manufactures flexographic printing plates and rotogravure printing cylinders. The flexographic plates are made by using solvent based materials to dissolve unwanted portions of the flexographic plate material, leaving the print area as a raised relief. The process has the potential to emit VOC in excess of Major Source thresholds, however the source has taken limits to preclude applicability of Title V.

There are (2) two such flexographic plate making processors included in the permit. One has been in existence at the facility, but the source is proposing a change of materials. The second flexographic plate processor and related equipment is being re-located for another facility with this permit action.

The rotogravure cylinders are machined, engraved, and hard-chrome plated. Chrome plating is subject to the MACT regulation Subpart N. The facility also has 4 proof presses for testing the rotogravure cylinders. There are (3) existing copper plating tanks at the source. Two tanks each hold 1 cylinder and the third tank holds 2 cylinders. With this permit action the source is removing the one tank which holds 2 cylinders and is replacing this tank with 2 smaller tanks that hold 1 cylinder each. The source is also adding a manual dechrome cleaning station and a second electrolytic dechrome tank.

EMISSION AND OPERATING CAPS DESCRIPTION:

Southern Graphic Systems voluntarily requested limits of 50 tpy or less for VOC emissions.

OPERATIONAL FLEXIBILITY:

The source is not restricted as to hours of operation or quantity of product produced while remaining within the caps above.